Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-57. (Canceled)

58.   (Previously Presented) A system for distributed packet-based paging, comprising:

a plurality of access nodes configured to provide paging messages, each of the access nodes comprising a paging requirements determination module and a paging resource control module,

wherein each paging requirements determination module is configured to receive and analyze paging information to determine a level of quality of service for a corresponding paging message, and

wherein each paging resource control module is configured to allocate paging resources and generate the corresponding paging message in accordance with the level of quality of service determined by the paging requirements determination module.

59.   (Previously Presented) An access node for use in a system for distributed packet based paging, comprising:

a paging requirements determination module; and

a paging resource control module,

wherein the paging requirements determination module is configured to receive and analyze paging information to determine a level of quality of service of a corresponding paging message, and

wherein the paging resource control module is configured to allocate paging resources and generate the corresponding paging message in accordance with the level of quality of service determined by the paging requirements determination module.

60.   (Previously Presented) The access node of claim 59, wherein the paging requirements determination module further comprises:

a monitoring agent module that determines when to initiate a page to the intended end node;

a tracking agent module that tracks the location of end nodes based on received location update signals; and

an anchor paging agent module that coordinates page request signaling to the intended node.

61.   (Previously Presented) The access node of claim 59, wherein the paging resource control module further comprises:

a local paging agent module configured to coordinate signaling between the paging requirements determination module and other access nodes.

62.   (Previously Presented) The access node of claim 109, wherein the exchange of the paging information is based on an Internet protocol (IP).

63.   (Previously Presented) The access node of claim 62, wherein the paging requirements determination module is further configured to determine the level of quality of service based on matching IP datagrams to specific paging requirements.

64.   (Canceled)

65.   (Previously Presented) The access node of claim 109, wherein the QoS comprises a page transmission timing constraint, wherein the page transmission timing constraint indicates paging latency information and specifies an upper bound on paging delay.

66.   (Previously Presented) The access node of claim 109, wherein the QoS is one of a

plurality of levels.

67.   (Previously Presented) The access node of claim 109, wherein the QoS requires at least one of transmission of the page multiple times and retransmission of the page at least once in the absence of an acknowledgment.

68.   (Previously Presented) The access node of claim 109, wherein the determined level of quality of service comprises determining whether a plurality of paging requests are associated as a group with a common quality of service indicator; and

the paging resource control functionality comprises allocating a fraction of paging channel capacity or paging transmission opportunities to the plurality of page requests associated with the group.

69.   (Previously Presented) The access node of claim 109, wherein the determined level of quality of service comprises information indicating a state of device operation in which an end node to which the page is directed is to operate after receiving the page.

70.   (Previously Presented) A method for communicating paging information in a system for distributed packet-based paging, comprising:

determining a level of quality of service for a paging message by receiving and analyzing paging information at a paging requirements determination module within an access node; and

allocating paging resources and generating the paging message from a paging resource control module within the access node in accordance with the level of quality of service determined by the paging requirements determination module.

71.   (Previously Presented) The method of claim 70, further comprising:

determining, by the paging requirements determination module, when to initiate a page to the intended end node;

tracking, by the paging requirements determination module, the location of end nodes based on received location update signals; and

coordinating, by the paging requirements determination module, page request signaling to the intended end node.

72.   (Previously Presented) The method of claim 70, further comprising:

coordinating signaling, by the paging resource control module, between the paging requirements determination module of one access node and other access nodes.

73.   (Previously Presented) The method of claim 110, wherein the exchange of the paging information is based on an Internet protocol (IP).

74.   (Previously Presented) The method of claim 73, wherein the determining of the level of quality of service comprises determining paging requirements based on matching IP datagrams to specific paging requirements.

75.   (Canceled)

76.   (Previously Presented) The method of claim 110, wherein the determining of the level of quality of service (QoS) comprises determining that the QoS comprises a page transmission timing constraint, wherein the page transmission timing constraint indicates paging latency information and specifies an upper bound on paging delay.

77.   (Previously Presented) The method of claim 110, wherein the determining of the level of quality of service (QoS) comprises determining that the QoS is one of a plurality of levels.

78.   (Previously Presented) The method of claim 110, wherein the determining of the level of quality of service (QoS) comprises determining that the QoS requires at least one of transmission

of the page multiple times and retransmission of the page at least once in the absence of an acknowledgment.

79.   (Previously Presented) The method of claim 110, wherein the determining of the level of quality of service comprises determining whether a plurality of paging requests are associated as a group with a common quality of service indicator; and

further comprising:

allocating by the paging resource control module a fraction of paging channel capacity or paging transmission opportunities to the plurality of page requests associated with the group.

80.   (Previously Presented) The method of claim 110, wherein the determining of the level of quality of service comprises determining that the paging requirements comprise level of quality of service comprises information indicative of a state of device operation in which an end node to which the page is directed is to operate after receiving the page.

81.   (Previously Presented) A computer program product comprising:

a computer readable medium comprising instructions for:

receiving and analyzing paging information at a paging requirements determination module in the access node;

determining, at the paging requirements determination module in the access node, a level of quality of service for a paging message in accordance with the paging information;

allocating paging resources and generating the paging message at a paging resource control module in the access node, in accordance with the level of quality of service determined by the paging requirements determination module.

82.   (Previously Presented) The computer program product of claim 81, further comprising instructions for:

determining, by the paging requirements determination module, when to initiate the page

to the intended end node;

tracking, by the paging requirements determination module, the location of end nodes based on received location update signals; and

coordinating, by the paging requirements determination module, a page request signaling to the intended end nodes.

83.	(Previously Presented) The computer program product of claim 81, further comprising instructions for:

coordinate signaling by the paging resource control module between the paging requirements determination module of one access node and other access nodes.

84.	(Previously Presented) The computer program product of claim 111, wherein the exchange of the paging information is based on an Internet protocol (IP).

85.	(Previously Presented) The computer program product of claim 84, wherein the instructions for determining the level of quality of service comprise instructions for determining the level of quality of service based on matching IP datagrams to specific paging requirements.

86.	(Canceled)

87.	(Previously Presented) The computer program product of claim 111, wherein the instructions for determining the level of quality of service comprise instructions for determining that the QoS includes a page transmission timing constraint, wherein the page transmission timing constraint indicates paging latency and specifies an upper bound on paging delay.

88.	(Previously Presented) The computer program product of claim 111, wherein the instructions for determining the level of quality of service comprise instructions for determining that the QoS is one of a plurality of levels.

89.   (Previously Presented) The computer program product of claim 111, wherein the instructions for determining the level of quality of service comprise instructions for determining that the QoS requires at least one of transmission of the page multiple times and retransmission of the page at least once in the absence of an acknowledgment.

90.   (Previously Presented) The computer program product of claim 111, wherein the instructions for determining the level of quality of service comprise instructions for determining whether a plurality of paging requests are associated as a group with a common quality of service indicator; and further comprise instructions for allocating, by the paging resource control module, a fraction of paging channel capacity or paging transmission opportunities to the plurality of page requests associated with the group.

91.   (Previously Presented) The computer program product of claim 111, wherein the instructions for determining the paging requirements comprise instructions for determining that the paging requirements comprise information indicative of a state of device operation in which an end node to which the page is directed is to operate after receiving the page.

92.   (Previously Presented) An access node for use in a system for distributed packet based paging, comprising:
        means for receiving and analyzing paging information to determine a level of quality of service (QoS) for a paging message; and
        means for allocating paging resources and generating the paging message in accordance with the level of quality of service determined by the means for receiving and analyzing the paging information.

93.   (Previously Presented) The access node of claim 92, wherein the means for receiving and analyzing paging information comprises:

means for determining when to initiate the page to the intended end node;

means for tracking a location of end nodes based on received location update signals; and

means for coordinating page request signaling to the intended end node.

94.   (Previously Presented) The access node of claim 92, wherein the means for allocating paging resources and generating the paging message comprises:

means for coordinating signaling between the means for receiving and analyzing paging information of one access node and other access nodes.

95.   (Previously Presented) The access node of claim 112, wherein the means for exchanging paging information is configured to utilize an Internet protocol (IP).

96.   (Previously Presented) The access node of claim 95, wherein the means for receiving and analyzing paging information comprises means for determining the level of quality of service based on matching IP datagrams to specific paging requirements.

97.   (Canceled)

98.   (Previously Presented) The access node of claim 112, wherein the QoS comprises a page transmission timing constraint, wherein the page transmission timing constraint indicates paging latency information and specifies an upper bound on paging delay.

99.   (Previously Presented) The access node of claim 112, wherein the QoS is one of a plurality of levels.

100.   (Previously Presented) The access node of claim 112, wherein the QoS requires at least one of transmission of the page multiple times and retransmission of the page at least once in the absence of an acknowledgment.

101.   (Previously Presented) The access node of claim 112, wherein the means for receiving and analyzing paging information comprises means for determining whether a plurality of paging requests are associated as a group with a common quality of service indicator; and the means for allocating paging resources and generating the paging message comprises means for allocating a fraction of paging channel capacity or paging transmission opportunities to the plurality of paging requests associated with the group.

102.   (Previously Presented) The access node of claim 112, wherein the means for receiving and analyzing paging information comprises means for determining that the level of quality of service corresponds to information indicating a state of device operation in which an end node to which the page is directed is to operate after receiving the page.

103.   (Currently Amended) An end node for use in a system for distributed packet based paging, comprising:

means for receiving a first page from a first access node comprising a first paging resource control module and a first paging requirements determination module, where the first paging resource control module ~~generates~~ is configured to allocate paging resources and generate the first page to the end node in accordance with a first level of quality of service determined based on paging information on received by the first paging requirements determination module; and

means for receiving a second page, different from the first page, from a second access node comprising a second paging resource control module and a second paging requirements determination module, where the second paging resource control module ~~generates~~ is configured to allocate paging resources and generate the second page in accordance with a second level of quality of service determined based on the same paging information received by the second paging requirements determination module.

104.   (Previously Presented) A method for receiving a page in a system for distributed packet-based paging, comprising:

receiving a first page from a first access node comprising a first paging resource control module and a first paging requirements determination module, where the first paging resource control module is configured to allocate paging resources and generate the first page to the end node in accordance with a first level of quality of service determined based on paging information received by the first paging requirements determination module; and

receiving a second page, different from the first page, from a second access node comprising a second paging resource control module and a second paging requirements determination module, where the second paging resource control module is configured to allocate paging resources and generate the second page in accordance with a second level of quality of service determined based on the same paging information received by the second paging requirements determination module.

105.   (Previously Presented) The end node of claim 103, further comprising means for providing location update signals,

wherein the first access node and second access node are each further configured to determine when to initiate the page to the intended end node, to track a location of respective end nodes based on the location update signals, and to coordinate page request signaling to the intended end node.

106.   (Canceled)

107.   (Previously Presented) The end node of claim 115, wherein the QoS comprises a page transmission timing constraint, wherein the page transmission timing constraint indicates paging latency information and specifies an upper bound on paging delay.

108.   (Currently Amended) The end node of claim [[106]] 115, wherein the QoS requires at

least one of transmission of the page multiple times and retransmission of the page at least once in the absence of an acknowledgment.

109.   (Previously Presented) The access node of claim 59, wherein the access node is configured to exchange paging information with a second access node in the system for distributed packet based paging, and to serve at least one end node, and

wherein the paging requirements determination module is further configured to determine the level of quality of service (QoS) at least in part (i) from analyzing at least one of a header field or a payload field, using a packet classification technique, from a data message received and (ii) from stored information uniquely associated with the access node in which the paging requirements determination module resides.

110.   (Previously Presented) The method of claim 70, further comprising exchanging paging information between a plurality of access nodes, wherein the determining of the level of quality of service comprises determining the level of quality of service at least in part (i) from analyzing at least one of a header field or a payload field, using a packet classification technique, from a received data message and (ii) from stored information uniquely associated with the access node in which the paging requirements determination module resides.

111.   (Previously Presented) The computer program product of claim. 81, further comprising instructions for exchanging paging information between a plurality of access nodes in a system for distributed packet based paging,

wherein the instructions for determining the level of quality of service for the paging message comprise instructions for determining the level of quality of service (QoS) at least in part (i) from analyzing at least one of a header field or a payload field, using a packet classification technique, from a data message received and (ii) from stored information uniquely associated with the access node in which the paging requirements determination module resides.

112.   (Previously Presented) The access node of claim 92, further comprising means for exchanging paging information between a plurality of access nodes,

wherein the means for receiving and analyzing paging information comprises means for determining the level of quality of service at least in part (i) from analyzing in least one of a header field or a payload field, using a packet classification technique, from a data message received and (ii) from stored information uniquely associated with the access node in which the paging requirements determination module resides.

113.   (Previously Presented) The end node of claim 103, wherein the first access node and the second access node are each configured to exchange paging information corresponding to the first page and the second page.

114.   (Previously Presented) The end node of claim 113, wherein each of the first and second paging requirements determination modules is further configured to determine paging requirements to send to the first and second paging resource control module, respectively, currently in communication with an intended end node of the first and second page, respectively, the respective paging requirements being derived at least in part (i) from analyzing at least one of a header field or a payload field, using a packet classification technique, from a data message received and (ii) from stored information uniquely associated with the first or second access node, respectively, in which the respective paging requirements determination module resides.

115.   (Previously Presented) The end node of claim 114, wherein each respective paging resource control module is further configured to provide paging resource control functionality in accordance with paging requirements received from the respective paging requirements determination module, where the paging resource control functionality includes controlling at least one of (i) paging resources, (ii) paging operations, or (iii) the generation of pages to the respective intended end node.

116.   (Previously Presented) The method of claim 104, wherein the first access node and the second access node are each configured to exchange paging information corresponding to the first page and the second page.

117.   (Previously Presented) The method of claim 116, wherein each of the first and second paging requirements determination modules is further configured to determine paging requirements to send to the first and second paging resource control module, respectively, currently in communication with an intended end node of the first and second page, respectively, the respective paging requirements being derived at least in part (i) from analyzing at least one of a header field or a payload field, using a packet classification technique, from a data message received and (ii) from stored information uniquely associated with the first or second access node, respectively, in which the respective paging requirements determination module resides.

118.   (Previously Presented) The method of claim 117, wherein each respective paging resource control module is further configured to provide paging resource control functionality in accordance with paging requirements received from the respective paging requirements determination module, where the paging resource control functionality includes controlling at least one of (i) paging resources, (ii) paging operations, or (iii) the generation of pages to the respective intended end node.

119.   (Previously Presented) The method of claim 70, further comprising:
        delivering paging information directly from an originating access node to intended destination access nodes using one of Internet Protocol (IP) unicast or multicast addressing and delivery mechanisms.

120.   (New) The system as in claim 59, wherein the paging requirement determination module determines the level or quality of service by matching IP datagrams received at the access node with specific paging requirements.